

All PPIs are equivalent for treatment of GORD

Clinical question Is there any difference between proton pump inhibitors for the treatment of gastro-oesophageal reflux disease?

Bottom line There is no significant difference between equivalent doses of proton pump inhibitors, including equivalent doses of esomeprazole (Nexium) and omeprazole. The decision to choose one over another should be based first on cost and second on individual patient response.

Synopsis This meta-analysis identified all double-blind randomised controlled trials comparing one proton pump inhibitor with another for the treatment of gastro-oesophageal reflux disease (GORD), using endoscopic healing as the reference standard for treatment success. A total of 19 studies, involving eight comparisons (see right) and more than 9,000 patients were identified, most lasting four weeks. Only one comparison found a statistically significant difference between groups in the treatment of GORD: esomeprazole 40mg vs omeprazole 20mg (80 per cent vs 67 per cent response rate; $P=0.04$; number needed to treat = 7). However, a comparison in 1,306 patients of equivalent doses of 20mg esomeprazole vs 20mg omeprazole found no difference in endoscopic healing. Furthermore, the response rates for omeprazole 20mg in the two studies comparing it with esomeprazole 40mg were 65 per cent and 67 per cent — considerably

lower than in other comparisons looking at this dose, in which the success rate was between 70 per cent and 91 per cent. This would make esomeprazole look more effective in comparison. Thus, although this comparison has never been made directly, it seems likely that 40mg omeprazole would be similar in effectiveness to 40mg esomeprazole.

Comparisons Pantoprazole 40mg vs omeprazole 20mg; pantoprazole 20mg vs omeprazole 20mg; lansoprazole 30mg vs omeprazole 20mg; lansoprazole 15mg vs omeprazole 20mg; lansoprazole 30mg vs omeprazole 40mg; lansoprazole 30mg vs pantoprazole 40mg; rabeprazole 20mg vs omeprazole 20mg and rabeprazole 10mg vs omeprazole 20mg.

Level of evidence 1a (systematic review of RCTs with homogeneity).

Reference Klok RM, Postma MJ, Van Hout BA, Brouwers JR. Meta-analysis: comparing the efficacy of proton pump inhibitors in short-term use. *Alimentary Pharmacology and Therapeutics* 2003;17:1237–45.

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